

LOCATION

Weill Cornell Medical College, Belfer Research Building  
413 East 69th Street, New York, NY 10021

Anatomy Lab  
1300 York Avenue, New York, New York 10065

IDENTIFIED PRACTICE GAPS/EDUCATIONAL NEEDS

Minimally invasive spinal surgery and navigation for spinal surgery are rapidly evolving. This course will teach and update spine surgeons on the current surgical thinking and will provide hands-on experience. MIS spinal surgery is based on four T's: Target (meaning optimal patient and symptom selection); Technology (such as access tubes, microscope and endoscope, 2D and 3D navigation and robotics and MIS implants); Technique (surgical skills such as performing a unilateral approach for bilateral decompression); and Teaching/Training. This course will address all four T's of MIS surgery.

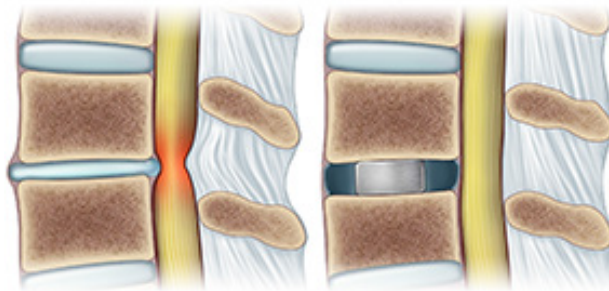
TARGET AUDIENCE—NATIONAL/INTERNATIONAL

This course is designed for national and international practicing neurosurgeons and orthopedic spine surgeons, fellows, and residents in training.

EDUCATIONAL OBJECTIVES

The objective of any CME program is to improve patient care. Upon completion of this course, participants will be able to:

- 1. Identify the spinal and paraspinal structures;
- 2. Determine which types of pathology are amenable to minimally invasive spinal surgery;
- 3. Be familiar with state-of-the-art minimally invasive surgery used in these approaches;
- 4. Identify the principles of stereotactic spinal navigation and its use for minimally invasive spinal procedures;
- 5. Debate on the pros and cons of MIS approaches and selection of patients for MIS surgery.



ACCREDITATION AND CREDIT DESIGNATION STATEMENTS

Weill Cornell Medical College is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Weill Cornell Medical College designates this live activity for a maximum of 16.25 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

DISCLOSURE OF RELATIONSHIPS/CONTENT VALIDITY

It is the policy of Weill Cornell Medical College to adhere to ACCME Criteria, Policies, and Standards for Commercial Support and content validation in order to ensure fair balance, independence, objectivity, and scientific rigor in all its sponsored activities. All speakers, Course Directors, Course Co-directors, planners, reviewers, and staff members participating in sponsored activities are expected to disclose relevant financial relationships pertaining to their contribution to the activity. Relationship information is analyzed to determine whether conflicts of interest exist. All conflicts of interest are resolved prior to participation in the planning or implementation of this activity. Presenters and authors are also expected to disclose any discussion of (1) off-label or investigational uses of FDA approved commercial products or devices or (2) products or devices not yet approved in the United States.

WCMC CME activities are intended to be evidence-based and free of commercial bias. If you have any concerns, please call the Office of Continuing Medical Education at 646-962-6931 to anonymously express them.

ACCOMMODATIONS

Discounted accommodations are available. Visit the course web site for more information and to reserve a room. Discounted accommodations are available only while supply lasts.

LOCATION/TRAVEL

Weill Cornell Medical College, Belfer Research Building  
413 East 69th Street, New York, NY 10021

Anatomy Lab  
1300 York Avenue, New York, New York 10065

**BY CAR:** FDR driving SOUTH, exit at 71st Street. FDR driving NORTH, exit at 63rd Street, and proceed to 1300 York Avenue. Garage parking is available.

**BY AIR:** Arrivals at LaGuardia, John F. Kennedy and Newark International Airports. Public transportation and taxi service are available from all three airports.

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**Weill Cornell Medicine**  
Weill Cornell Medical College  
525 East 68th Street, Box 99  
New York, NY 10065

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REGISTER  
TODAY

12th

New York City Minimally Invasive Spine, Robotics & 3D Navigation Symposium:  
"Case-Based and Hands-On"  
December 13-15, 2018

**COURSE DIRECTORS**  
Roger Härtl, MD  
Luiz M. Pimenta, MD, PhD

**FACULTY**  
Giuseppe Barbagallo, M.D.  
Sigurd Berven, M.D.  
Eric Elowitz, M.D.  
Kai Ming Fu, M.D., Ph.D.  
Michael Hisey, M.D.  
Christoph Hofstetter, M.D.  
Alexandre Sadao Iutaka, M.D.  
James Lynch  
Cristiano Menezes, M.D., Ph.D.  
Paul Park, M.D.  
Frank Phillips, M.D.  
John Pollina, M.D.  
Sheeraz Qureshi, M.D., MBA  
Franzi Schmidt, M.D.  
Frank Schwab, M.D.  
Rahul Shah, M.D.  
Juan Uribe, M.D.  
Anand Veeravagu, M.D.  
Michael Virk, M.D., Ph.D.  
Christoph Wipplinger, M.D.

**LOCATION**  
Weill Cornell  
Medical College  
1300 York Avenue  
New York, NY 10065

11th New York City Minimally Invasive Spine, Spinal Endoscopy, Robotics & 3D Navigation Symposium: “Case-Based and Hands-On”

SPONSORED BY: Weill Cornell Medical College

OVERVIEW/3-DAY COURSE DESCRIPTION

The purpose of this course is to provide a comprehensive overview on new and less invasive techniques with and without stereotactic navigation for the operative treatment of spinal disorders. Proponents and critics of MIS surgery will discuss the pros and cons of MIS approaches, establishing the skills essential in selecting appropriate patients for MIS surgery. Practical sessions will allow the participant to apply the latest spinal techniques, including spinal navigation in cadavers. Combining didactic and strictly case-based sessions with hands-on cadaveric dissections, the course will equip participants with the skills they need to start utilizing these approaches in their own practices. Participants will have an opportunity to discuss difficult cases with the faculty during the Q&A and case presentation sessions. We will discuss in detail the four “T’s” of MIS surgery: Target, Technology, Techniques, and Training/Teaching.

COURSE CO-DIRECTORS

Roger Härtl, M.D.  
Luiz M. Pimenta, MD, PhD

COURSE COORDINATOR

Tatiana Soto  
email: neurosurgery-cme@med.cornell.edu

DATE AND TIME

Thursday/Friday/Saturday December 13-December 15, 2018  
Registration: December 13, 2018 • 12:00 PM

COURSE AGENDA

Day 1 — Thursday, December 13, 2018

|               |                                                             |
|---------------|-------------------------------------------------------------|
| 12:00-12:45pm | Registration and Lunch<br>Belfer Research Building          |
| 12:45-1:00pm  | Welcome Remarks<br>Roger Härtl, M.D. and Luiz Pimenta, M.D. |

Session I: MIS-Decompression

|                 |                                                                                                                        |
|-----------------|------------------------------------------------------------------------------------------------------------------------|
| 1:00-1:10pm     | Introduction to course and MIS<br>Roger Härtl, M.D.                                                                    |
| 1:10-1:30pm ‡   | Step by step: 10 step technique; 3 principles & MIS decompression for lumbar stenosis<br>Roger Härtl, M.D.             |
| 1:30 – 1:50pm ‡ | Step by step: Decompression for cervical pathologies<br>Alexandre Sadao Lutaka, M.D.                                   |
| 1:50-2:10pm ‡   | Step by step: Endoscopy for spinal pathologies<br>Christoph Hofstetter, M.D.                                           |
| 2:10-2:30pm ‡   | Step by step: Indirect Decompression via Transpoas Approach and Extreme Lateral Interbody Fusion<br>Luiz Pimenta, M.D. |
| 2:30-2:40pm     | Tubular far lateral discectomy: Tips and tricks<br>Eric Elowitz, M.D.                                                  |
| 2:40-3:00pm     | BREAK                                                                                                                  |

Session II: Navigation, Planning, Robotics, 3D Printing

|               |                                                                                             |
|---------------|---------------------------------------------------------------------------------------------|
| 3:00–3:20pm ‡ | Step by step: 3D Navigation for Spine<br>Paul Park, M.D.                                    |
| 3:20-3:40pm ‡ | Robotic OLIF<br>John Pollina, M.D.                                                          |
| 3:40-4:00pm ‡ | Surgical Planning using advanced software: current status and outlook<br>Frank Schwab, M.D. |
| 4:00-4:20pm ‡ | 3D printing in spinal surgery<br>James Lynch, M.D.                                          |
| 4:20-4:40pm ‡ | Total Navigation<br>Roger Härtl, M.D.                                                       |
| 4:40-4:50pm   | Robotic navigation in complex deformity surgery<br>Juan Uribe, M.D.                         |
| 4:50-5:30pm   | Panel discussion: What is the future for robotic & navigation<br>All Faculty                |

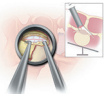
Day 2 – Friday, December 14th 2018

|             |                                                        |
|-------------|--------------------------------------------------------|
| 7:15-7:40am | Registration and Breakfast<br>Belfer Research Building |
|-------------|--------------------------------------------------------|

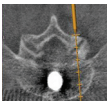
Session III: Advanced MIS Techniques

|               |                                                     |
|---------------|-----------------------------------------------------|
| 7:40-8:00am ‡ | Step by step: MIS TLIF<br>Giuseppe Barbagallo, M.D. |
|---------------|-----------------------------------------------------|

‡ Presentation followed by a 10-minute discussion period



|               |                                                                                                                                 |
|---------------|---------------------------------------------------------------------------------------------------------------------------------|
| 8:00-8:20am ‡ | Expandable Lateral Cages<br>Sheeraz Quereshi, M.D.                                                                              |
| 8:20-8:40am ‡ | Navigation<br>Single stage lateral surgery &<br>Anand Veeravagu, M.D.                                                           |
| 8:40-9:00am ‡ | Current status cervical TDR – advantages to fusion<br>Michael Hisey, M.D.                                                       |
| 9:00-9:20am ‡ | Biological approaches for disc repair and Regeneration<br>Roger Härtl, M.D.                                                     |
| 9:20-9:40am   | MIS Cervical facet cages<br>Rahul Shah, M.D.                                                                                    |
| 9:40-10:00am  | BREAK                                                                                                                           |
| 10:00-11:00am | MIS Deformity<br>Moderators: Kai Ming Fu, M.D., Ph.D. And Smaller group Case Discussions (2 rooms)<br>Michael Virk, M.D., Ph.D. |



Session IV: “Socratic Battle”

|                 |                                                                                                                                                                                                                               |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00-11:20am ‡ | MIS is best for deformity<br>Juan Uribe, M.D.                                                                                                                                                                                 |
| 11:20-11:30am   | Open surgery is better and safe<br>Sig Berven, M.D.                                                                                                                                                                           |
| 11:30-11:40am   | Q & A Moderator: Roger Härtl, M.D.                                                                                                                                                                                            |
| 11:40-11:50pm   | Complex Endoscopy: TLIF fusion Etc.<br>Luiz Pimenta, M.D.                                                                                                                                                                     |
| 11:50-12:50pm   | LUNCH and DEG scoli cases / Videos (cervical)<br>Moderators: Fellows- Franziska Schmidt, M.D. and Christoph Wipplinger, M.D.<br>Special Session: MIS Deformity Correction: Co- Chairs: Kai Ming Fu, M.D. & Michael Virk, M.D. |
| 12:50-1:10pm ‡  | OLIF 5/1<br>John Pollina, M.D., PhD.                                                                                                                                                                                          |
| 1:10-1:30pm ‡   | MIS Sacro-Pelvic Fixation Techniques<br>Frank Phillips, M.D.                                                                                                                                                                  |
| 1:30-1:50pm ‡   | Single stage perc screws with navigation<br>Michael Virk, M.D., PhD.                                                                                                                                                          |
| 1:50-2:10pm ‡   | MIS deformity correction: mini PSO<br>Juan Uribe, M.D.                                                                                                                                                                        |
| 2:10-2:30pm ‡   | Lateral potential for deformity correction<br>Cristiano Menezes, M.D.                                                                                                                                                         |
| 2:30-2:50pm ‡   | Posterior MIS deformity correction<br>Roger Härtl, M.D.                                                                                                                                                                       |
| 2:50-3:10pm     | BREAK                                                                                                                                                                                                                         |
| 3:10-3:20pm     | Expanding indications of MIS deformity correction based on the newest ISSG consensus recommendation<br>Kai Ming Fu, M.D., Ph.D.                                                                                               |
| 3:20-3:30pm     | Lateral deformity correction: Tips and tricks<br>Luiz Pimenta, M.D.                                                                                                                                                           |
| 3:30-4:45pm     | Deformity Case Discussions<br>Moderators: Kai Ming Fu, M.D. PhD. And Smaller group (2 rooms)<br>Michael Virk, M.D.                                                                                                            |
| 4:45-5:15pm     | Special lecture: The seven stages in the life of a spine surgeon<br>Roger Härtl, M.D.                                                                                                                                         |
| 5:15pm          | Closing Remarks<br>Roger Härtl, M.D.                                                                                                                                                                                          |

Day 3-Saturday, December 15, 2018

Session V: Techniques and Hands-on Lab

|               |                                                                                                                                                       |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7:20-7:40am   | Registration and Breakfast<br>Griffis Faculty Club                                                                                                    |
| 7:40-7:50am   | Overview /Instructions                                                                                                                                |
| 7:50-8:00am   | Travel to lab / Instructions                                                                                                                          |
| 8:00am-2:00pm | Surgical Demonstration and Lab Dissection<br>Anatomy Lab                                                                                              |
| 2:00-3:30pm   | Sit down Lunch and Case Presentations / Videos<br>Griffis Faculty Club<br>Moderators: Fellows- Franziska Schmidt, M.D. and Christoph Wipplinger, M.D. |

COURSE CO-DIRECTORS

**Roger Härtl, MD**  
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University of Washington Medical Center

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Fellowship Co- Director, Spine Surgery  
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Volker K.H. Sonntag Chair of Spine Research  
Barrow Neurological Institute

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**Christoph Wipplinger, M.D.**  
Neurosurgical Research Fellow  
Weill Cornell Medical College

FEES AND REGISTRATION

LECTURE SERIES AND LABORATORY

- ❑ Neurosurgeons, Orthopedic Spine Surgeons
- ❑ Residents/Fellows

LECTURE ONLY

- ❑ Neurosurgeons, Orthopedic Spine Surgeons
- ❑ Residents/Fellows

\*Register and submit payment *before* November 13, 2018 to receive the Early Bird Discount.

**REFUND POLICY:** An administrative fee of \$200 will be retained on all cancellations. All requests for a refund must be in writing and must be postmarked by December 1, 2018. After this date, no refunds are possible. To register by mail, send a check to Roseann Henry, Neurosurgery CME Registration, 525 East 68th Street, Box 99, New York, NY 10065

Please include the course name on your check, and include your title and affiliation, email address, and daytime phone number. Checks must be received before November 27, 2018. Refund requests must be made in writing, and an adminstrative fee will be retained on all cancellations. There are no refunds after December 1, 2018.